

**CULTURAL RESOURCES SURVEY OF THE
BIG BRANCH 115kV SUBSTATION,
EDGEFIELD COUNTY, SOUTH CAROLINA**



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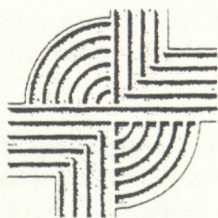
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CULTURAL RESOURCES SURVEY OF THE BIG BRANCH 115kV SUBSTATION, EDGEFIELD COUNTY, SOUTH CAROLINA

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September 11, 2002

This report is printed on permanent paper ∞

OUT-OF-REACH SURVEY OF THE
HISTORICALLY NEGLECTED
SOUTHERN COUNTY, SOUTH CAROLINA

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ABSTRACT

This study reports on an intensive cultural resources survey of approximately 5.4 acres in the southwestern portion of Edgefield County, about 4 miles north of the Aiken County, South Carolina line. The work, conducted for Mr. Tommy Jackson of Central Electric Power Cooperative, is meant to assist the Central Electric Power Cooperative in complying with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The tract is to be used by Central Electric Power Cooperative for the construction of the Big Branch 115kV Substation. The proposed substation borders an existing transmission line to the south and will tie into a powerline easement along Sweetwater Road (S-34) to the east of the substation.

The proposed undertaking will require clearing of the area, followed by construction of the proposed facility and powerlines. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites which may be in the project area. For this study an area of potential effect (APE) 1.0 mile around the proposed substation was assumed.

Consultation with the S.C. Department of Archives and History revealed no previously identified National Register of Historic Places sites within the 1.0 mile APE. An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology also failed to show any sites.

The archaeological survey of the tract incorporated shovel testing at 100-foot intervals on transects laid out at 100-foot intervals. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 34 shovel tests were excavated along 7 transect lines. No archaeological sites were identified as a result of these investigations.

A survey of public roads within a mile of the proposed undertaking was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. No such structures were identified during this investigation.

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tommy L. Jackson of Central Electric Power Cooperative. The work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a 5.4 acre lot which borders an existing transmission line to the south and will connect to a transmission line to the east along Sweetwater Road (S-34). The survey area is located in southwestern Edgefield County (Figure 1).

The tract, as previously mentioned, is intended to be used for a 115kV substation. Landscape alteration, primarily clearing, construction of the substation, and long-term maintenance of the facility, will cause severe damage to the ground surface and any archaeological resources which may be present in the survey area.

Construction, operation, and maintenance of the substation may also have an impact on historic resources in the project area. Although the project will not remove any structures, substations (as well as other above grade projects) may detract from the visual integrity of historic properties, creating what many consider discordant surroundings. As a result, this architectural survey used an area of potential effect (APE) about 1.0 mile in diameter around the proposed facility.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this section of Edgefield County.

We were requested by Mr. Tommy L. Jackson of Central Electric Power Cooperative to perform a cultural resources survey of the site on July 26, 2002. Background investigations were

performed shortly thereafter.

These investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. As a result of that work, no sites were found.

The South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. No NRHP sites were found within a mile of the survey, although no comprehensive survey has been completed for Edgefield County.

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted on August 21, 2002 by Mr. Tom Covington under the direction of Dr. Michael Trinkley and revealed no archaeological sites.

The architectural survey of the APE, designed to identify any structures over 50 years in age which retain their integrity, failed to reveal any such structures.

Report production was conducted at Chicora's laboratories in Columbia, South Carolina from September 11-12.

CULTURAL RESOURCES SURVEY OF THE BIG BRANCH 115kV SUBSTATION



Figure 1. Project vicinity in Edgefield County (basemap is USGS South Carolina 1:500,000).

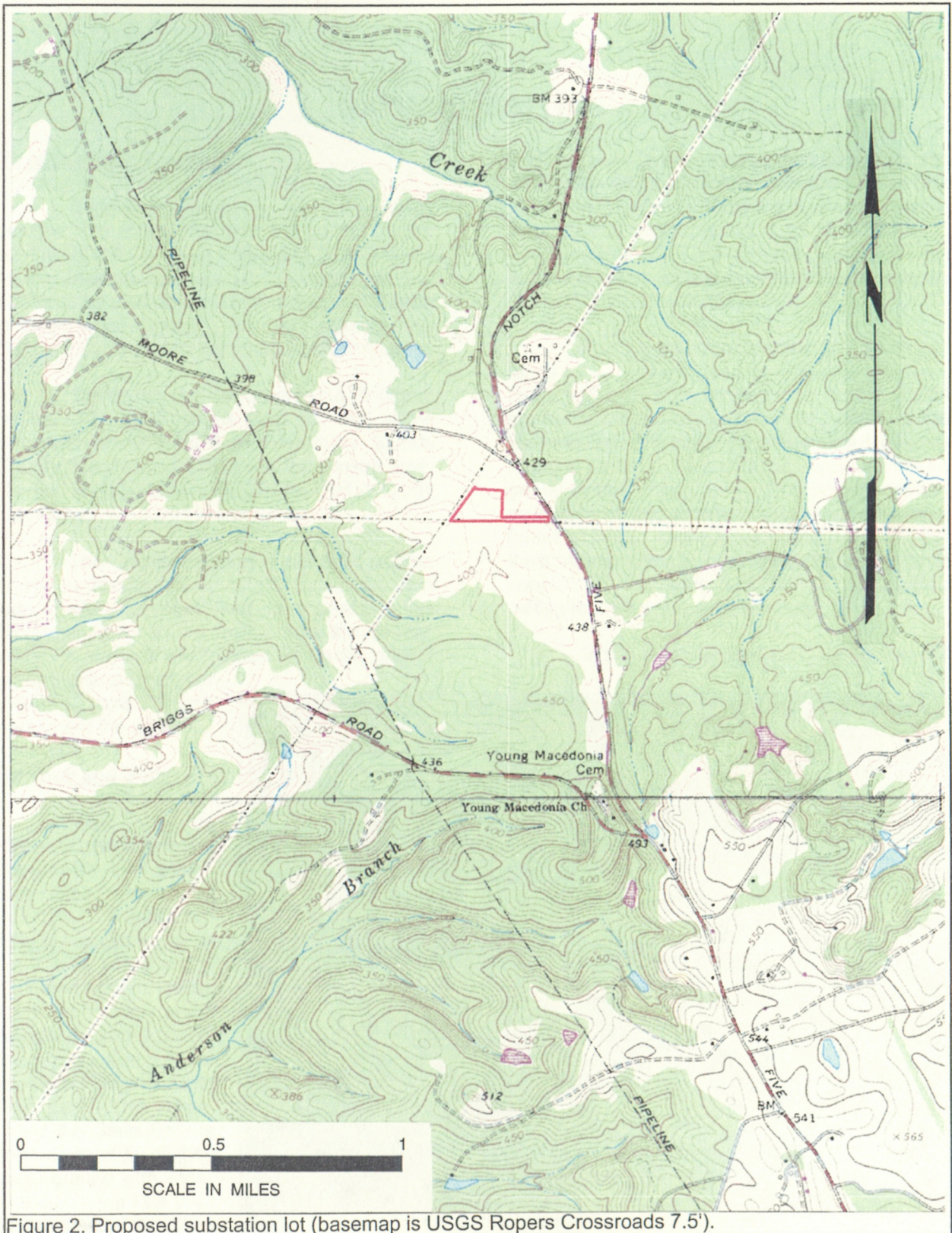


Figure 2. Proposed substation lot (basemap is USGS Ropers Crossroads 7.5').

NATURAL SETTING

Physiographic Provenance

Edgefield County is located midway between the mountains and the coast. On the southwest the County is separated from Georgia by the Savannah River. To the northwest it is bordered by McCormick County and to the north is Greenwood County. To the northeast lies Saluda County and to the south is Aiken County.

The county is located within the Piedmont region. The relief ranges from 147 feet at the Savannah River to 678 feet near the Saluda County line (Herren 1981). In the project area, elevations range from about 307 feet AMSL to 324 feet AMSL.

The drainages form a dendritic pattern and throughout the Piedmont this terrain has been extensively dissected and degraded. The Savannah River to the west drains this county. While no streams are located within the project area, numerous smaller streams are found throughout the county.

Geology and Soils

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasselton 1974). Some less intensively metamorphosed rocks such as slate, occur along the eastern part of the province from southern Virginia into Georgia. This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys. Consequently, the Slate

Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964). In Edgefield County the soils are formed in saprolite that weathered from crystalline rocks and "Carolina Slates". Soils from the river floodplains formed in sediment that washed from the uplands of the Piedmont province.

From a soils perspective the Piedmont tends to be characterized by well-drained loams found on 2 to 25% slopes and ridges. Well drained to moderately well drained medium to fine textured soils with slightly compacted subsoils are found at the base of these slopes, although still on gently sloping topography. Excessively drained soils with loamy, compact subsoils are typically found on positions where the slopes break to meet the streams. Overall, inherent fertility and organic content of the soils are fairly low, making cultivation difficult in the Piedmont.

In this area of Edgefield County, the soils



Figure 3. View of pines on the substation lot, looking north.

are broadly classified as the Cecil-Cataula-Hiwassee association. These soils are well drained with a loamy surface and clayey subsoil. All three soils were found within the survey area, along with Winnsboro fine sandy loams (Herren 1981).

Cecil sandy loams, found most often within the survey area, exhibit an Ap horizon of brown (7.5YR5/4) sandy loam to a depth of 0.5 foot over a red (2.5YR4/6) clay to a depth of 1.8 feet. These soils are well drained and moderately permeable.

The Hiwassee series have a slope from 2 to 6% and are well drained, moderately permeable soils. They have an Ap horizon of dark reddish brown (5YR3/4) sandy loam to a depth of 0.4 foot over a dark red (10R3/6) clay to a depth of 1.3 feet.

Cataula sandy loams are also well drained soils, but are more slowly permeable than Hiwassee soils. The Cataula series have an Ap horizon of brown (7.5YR5/4) sandy loam to a

depth of 0.6 foot over a red (2.5YR5/8) clay to a depth of 1.4 feet.

Found least within the survey area, Winnsboro fine sandy loams are well-drained slowly permeable soils. They have an Ap horizon of brown (10YR5/3) fine sandy loam to a depth of 0.5 foot over a brownish yellow (10YR6/6) sandy loam to a depth of 0.8 foot.

The topography of the project area suggests that it has probably gone through cycles of soils erosion and deposition, with erosion occurring during logging and cultivation, while soils likely built up during periods of forestation. In fact, the 1934 South Carolina Erosion Survey by M.W. Lowry found that this portion of Edgefield County was classified as "destroyed by gullying" (Lowry 1934). Trimble, in his erosion study of the Southern Piedmont, reported that this area of Edgefield County had lost up to a foot of soil through erosion in the nineteenth and early twentieth centuries (Trimble 1974:3). It is part of the area classified by Trimble as having high antebellum erosion land use with postbellum

continuation and belonging to his Region III – the Cotton Plantation Area (Trimble 1974:15).

Furthermore, logging in the Piedmont will result in the loss of nearly 0.36 tons of soil per acre per year and mechanical site preparation, perhaps used in the mid-1950s to convert the agricultural fields back to woods, might have resulted in the loss of 6.67 tons of soil per acre per year (U.S. Department of Agriculture 1983:25).

Climate

Elevation, latitude, and distance



Figure 4. View of substation lot looking north.

from the coast work together to affect the climate of South Carolina. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses which cross the mountains are warmed somewhat by compression before they descend on the Piedmont.

The climate of Edgefield County is temperate. The average winter temperature of 44°F and the average summer temperature of 88°F confirm the generally mild climate for winter, but hot and humid temperature for the summer. There are 28 inches of annual precipitation, with less than 24 inches occurring during the growing season.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun (1950). The project area is composed of medium tall to tall forests of broadleaf deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak.

While pines make up the majority of the tract, the rest of the substation is composed of an open, grassy field.

PREHISTORIC AND HISTORIC BACKGROUND

Previous Research

Edgefield County has received relatively little archaeological attention. Of the 77 reports listed in 1991, 44 (57%) took place in the Sumter National Forest for the U.S. Forest Service (Derting et al. 1991). The remaining projects consist of mostly compliance reports for bridge replacements (see for example Roberts 1987), borrow pits (see for example Trinkley 1982), and road widening projects (see Trinkley 1978).

Prehistoric Overview

Overviews for South Carolina's prehistory, while of differing lengths and complexity, are available in virtually every compliance report prepared. There are, in addition, some "classic" sources well worth attention, such as Joffre Coe's *Formative Cultures* (Coe 1964), as well as some new general overviews (such as Sassaman et al. 1990 and Goodyear and Hanson 1989). Also extremely helpful, perhaps even essential, are a handful of recent local synthetic statements, such as that offered by Sassaman and Anderson (1994) for the Middle and Late Archaic and by Anderson et al. (1992) for the Paleoindian and Early Archaic. Only a few of the many sources are included in this study, but they should be adequate to give the reader a "feel" for the area and help establish a context for the various sites identified in the study areas. For those desiring a more general synthesis, perhaps the most readable and well balanced is that offered by Judith Bense (1994), *Archaeology of the Southeastern United States: Paleoindian to World War I*. Figure 5 offers a generalized view of South Carolina's cultural periods.

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lanceolate projectile points, side scrapers, end scrapers; and drills (Coe 1964;

Michie 1977; Williams 1965).

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is somewhat dated, but has been summarized by Charles and Michie (1992). They reveal a widespread distribution across the state (see also Anderson 1992b:Figure 5.1) with at least several concentrations relating to intensity of collector activity.

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population

Dates	Period	Sub-Period	Regional Phases		
			COASTAL	MIDDLE SAVANNAH VALLEY	CENTRAL CAROLINA PIEDMONT
1715	HIST.	EARLY	Altamaha		Caraway
1650	MISS.	LATE	Irene / Pee Dee Savannah	Rembert	Dan River
1100		EARLY		Hollywood Lawton	
	WOODLAND	LATE	St. Catherine's / Swift Creek	Savannah	Pee Dee
800			Wilmington	Sand Tempered Wilmington?	Uwharrie
A.D.		MIDDLE	Deptford	Deptford	Yadkin
B.C.					
300		EARLY	Refuge		Badin
1000	ARCHAIC		Thom's Creek Stallings		
2000		LATE	Savannah River Halifax		
3000			Gulfport Morrow Mountain Stanly		
5000		MIDDLE			
8000		EARLY	Kirk Palmer Hardaway		
10,000	PALEOINDIAN		Hardaway - Dalton		
12,000			Cumberland	Clovis	Simpson

Figure 5. Generalized cultural sequence for South Carolina.

density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.¹, does

¹ The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included

with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods" (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

not form a sharp break with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produce only a few artifacts — these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated

with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups with, the bulk of our data for this period coming from the Uwharrie region in North Carolina.

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine which reduced the oak-hickory nut masts which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly

complex socio-economic system. While it is unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings and Thoms Creek series. These sand tempered Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976). Also potentially included are Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (Waring 1968). Others would have the Woodland beginning about 3,000 B.P. and perhaps as late as 2,500 B.P. with the introduction of pottery which is cord-marked or fabric-impressed and suggestive of influences from northern cultures.

There remains, in South Carolina, considerable ambiguity regarding the pottery series found in the Sandhills and their association with coastal plain and piedmont types. The earliest pottery found at many sites may be called either Deptford or Yadkin, depending on the research or their inclination at any given moment.

The Deptford phase, which dates from 3050 to 1350 B.P., is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Inner Coastal Plain/Sand Hills, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the

swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98; see also Sassaman 1993 for similar data recovered from 38AK157).

Further to the north and west, in the Piedmont, the Early Woodland is marked by a pottery type defined by Coe (1964:27-29) as Badin.² This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery little is known about the makers of the Badin wares and relatively few of these sherds are reported from South Carolina sites.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,300 B.P. to 1,200 B.P. In the Piedmont and even into the Sand Hills, the dominant Middle Woodland ceramic type is typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least 1650 B.P. coexisted with this Triangular Tradition. The Yadkin in South Carolina has been best explored by research at 38SU83 in Sumter County (Blanton et al. 1986) and at 38FL249 in Florence County

² The ceramics suggest clear regional differences during the Woodland which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

(Trinkley et al. 1993)

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

Historic Research

The survey tract (presently in Edgefield County) is in what is historically known as the Edgefield District. In 1826 Mills remarks that the district is historically similar to other nearby districts:

There is nothing that distinguishes the settlement of Edgefield from that of other districts in the upper and middle country. They were all gradually settled as the tide of emigration rolled from the north and east. It however may be observed of this, in contradistinction to some other districts, which were peopled a good deal by foreigners and their immediate descendants, (namely, by Irish, Scotch, and Dutch, mixed with a few English,) that Edgefield was

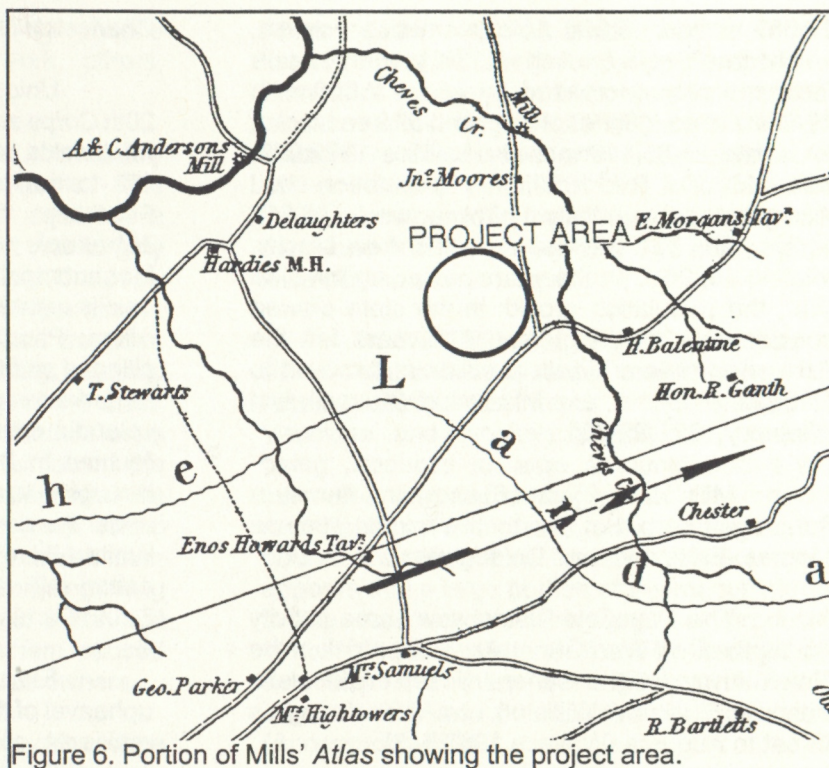


Figure 6. Portion of Mills' Atlas showing the project area.

settled principally, and indeed almost altogether, by emigrants from Virginia and North Carolina (Mills 1972:519-520 [1826]).

Although exploration of the Savannah River Valley began as early as the sixteenth century (DePratter 1989), substantial settlement of the area did not begin until after the Yamacree Indian War (1715-1718). By the mid-eighteenth century, cattle ranchers and subsistence farmers cleared land and established small farms and plantations (Kovacik and Winberry 1987:69-71), and by the eve of the American Revolution, cattle ranching was well established in the area (Brooks 1981).

While Tory forces were quite active in the Edgefield District during the American Revolution, only two skirmishes took place in nearby Aiken County. These were in conjunction with the American capture of Augusta from the British, and occurred at Beech Island and Galphin's Fort (Brooks 1984).

By 1800 the population consisted of

13,063 whites, 5,006 African-American slaves, and 61 free blacks totaling 18,130. In twenty years the population increased by about 7,000 with 12,864 whites, 19,198 slaves, and 57 free blacks, for a total of 25,119 individuals (Mills 1972:527, 664 [1826]). By 1850, the population had increased substantially. There were 16,252 whites, 22, 725 slaves, and 285 free blacks, totaling 39, 262. In the years preceding the Civil War, the population growth in the state slowed considerably, as planters and farmers left the exhausted soils of South Carolina and moved to Georgia, Alabama, and Mississippi (Kovacik and Winberry 1987:92-93).

Mills' *Atlas* (Figure 6) shows no names in the project area, but nearby are names such as Moores, Balentine, and Delaughters.

The Edgefield District saw some activity during the Civil War. General H.J. Kilpatrick of the Union Army fought General Joseph Wheeler's troops at Blackville, Williston, and Aiken during his threat to Augusta (Wallace 1953:548).

It was not until the end of the Civil War that Aiken, to the west, came under attack. With the fall of Savannah, General O.H. Hill was placed in charge of the Confederate forces in Augusta, where it was thought that Sherman's troops would surely head in order to destroy the vast stores of cotton. By late January 1865 Union forces were rapidly advancing through South Carolina, having taken Pocotaligo on January 14th and breaking the Charleston-Savannah railway for the first time during the war. The Confederate forces established a defensive line near Three Runs in Aiken County, near where the Savannah River Plant site is today. The Union forces reached Allendale by the 31st and succeeded in taking Blackville, breaking the

Charleston-Hamburg Railroad connection.

Union troops, including the 14th and the 20th Corps as well as Major General Hugh Judson Kilpatrick's cavalry, began following the railway line to the west, leading directly to Aiken. By February 10 Kilpatrick's cavalry reached Johnson's Turnout (at what is today Montmorenci), while the Confederate forces hastily established a line about two miles east of Aiken. Practicing total war, the country side was pillaged and the railway was destroyed. Kilpatrick remarked in a message to Sherman that "this is splendid country; plenty of forage and supplies" (quoted in Boylston n.d.:8). Efforts to advance through Aiken were foiled by Confederate troops under the command of General Joseph Wheeler. While Aiken was saved, as was the Graniteville cotton mill, and the stores of cotton in August, South Carolina was lost.

Exhausted by war and stunned by the upheaval of their economic and social system the residents of Edgefield District, as well as the rest of the state, were in a state of confusion and hardship. Immediately after the Civil War cotton prices peaked, causing many Southerners to plant cotton again, in the hope of recouping losses from the War. The single largest problem

Table 1.
Systems of Tenure

	Share-Cropping	Share Renting	Cash Renting
Landlord furnishes:	land housing fuel tools work stock seed half of fertilizer feed for stock	land housing fuel $\frac{1}{4}$ or $\frac{1}{2}$ fertilizer	land housing fuel
Tenant furnishes:	labor half of fertilizer	labor work stock feed for stock tools seed $\frac{3}{4}$ or $\frac{2}{3}$ fertilizer	labor work stock feed for stock tools seed fertilizer
Landlord receives:	$\frac{1}{2}$ of crop	$\frac{1}{4}$ or $\frac{1}{3}$ of crop	fixed amount in cash or lint cotton
Tenant receives:	$\frac{1}{2}$ of crop	$\frac{3}{4}$ or $\frac{2}{3}$ of crop	entire crop less fixed amount

across the South, however, was labor. While some freedmen stayed on to work, others, apparently many others, left.

The hiring of freedmen began immediately after the war, with variable results. The Freedmen's Bureau attempted to establish a system of wage labor, but the effort was largely tempered by the enactment of the Black Codes by the South Carolina Legislature in September 1865. These Codes allowed nominal freedom, while establishing a new kind of slavery, severely restricting the rights and freedoms of the black majority (see Orser 1988:50). Added to the Codes were oppressive contracts which reinforced the power of the plantation owner and degraded the freedom of the Blacks. The freedmen found power, however, in their ability to break their contracts and move to a new plantation, beginning a new contract. With the high price of cotton and the scarcity of labor, this mechanism caused tremendous agitation to the plantation owners.

Gradually owners turned away from wage labor contracts to two kinds of tenancy — sharecropping and renting. While very different, both succeeded in making land ownership very difficult, if not impossible, for the vast majority of Blacks. Sharecropping required the tenant to pay his landlord part of the crop produced, while renting required that he pay a fixed rent in either crops or money. In sharecropping the tenant supplied the labor and one-half of the fertilizer, the landlord supplied everything else — land, house, tools, work animals, animal feed, wood for fuel, and the other half of the needed fertilizer. In return the landlord received half of the crop at harvest. This system became known as "working on halves," and the tenants as "half hands," or "half tenants."

In share-renting, the landlord supplied the land, housing, and either one-quarter or one-third of the fertilizer costs. The tenant supplied the labor, animals, animal feed, tools, seed, and the remainder of the fertilizer.

At harvest the crop was divided in proportion to the amount of fertilizer that each party supplied. A number of variations on this occurred, one of the most common being "third and fourth," where the landlord received one-fourth of the cotton crop and one-third of all other crops. In cash-renting the landlord provided the land and housing, with the renter providing everything else and paying a fixed per-acre rent in cash.

In the 1880s Edgefield County had no cotton mills and none under construction, while Aiken County had three mills (Graniteville, Vaucluse, and Langley). Cotton was, however, being produced in large amounts and it was estimated that the average cost of producing merchantable cotton was about eight cents a pound and 40 dollars to bale 500 pounds. It appears that a large portion of the manufacturing in the county was milling grain or producing lumber and turpentine. Of the 84 manufacturing establishments there were 55 grist mills, 22 lumber mills, and 6 turpentine establishments (Anonymous 1884).

In Aiken County, corn was the largest agricultural product with 75,966 acres producing 703,080 bushels. Cotton closely followed with 63,127 acres producing 29,676 bales (Anonymous 1907:571). Edgefield County, however, produced

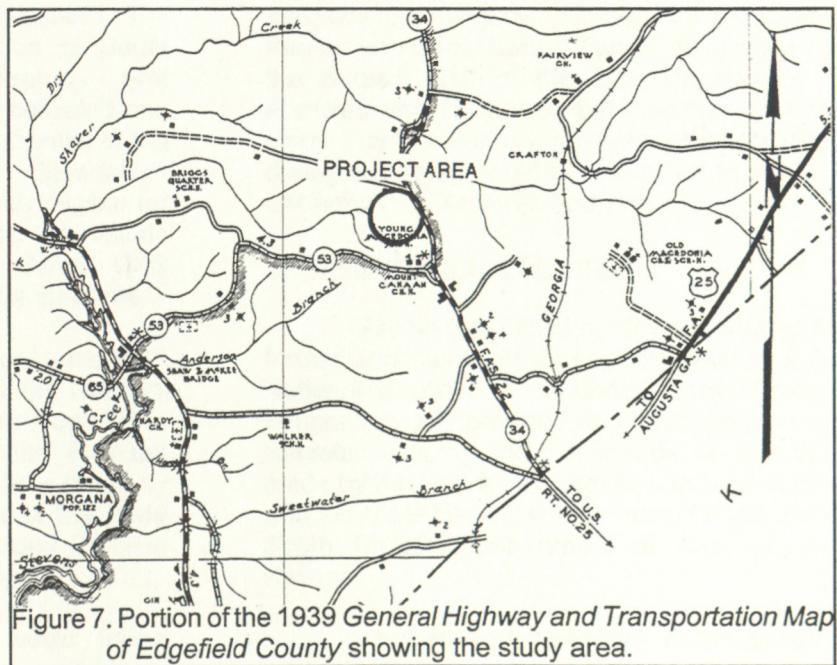


Figure 7. Portion of the 1939 General Highway and Transportation Map of Edgefield County showing the study area.

primarily cotton with 58,366 acres producing 20,960 bales. 38,316 acres was planted in corn producing 306,120 bushels (Anonymous 1907:574). By 1900 Aiken county had a population of 39,032 rising from 31,822 in the previous decade. Edgefield County's population dropped dramatically from 49,259 in 1890 to 25,478 in 1900.

The 1939 *General Highway and Transportation Map of Edgefield County* (Figure 7) reveals no structures in the project area.

RESEARCH METHODS AND FINDINGS

Archaeological Field Methods and Findings

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along transects placed at 100-foot intervals along the south portion of the tract.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (defined by the presence of three or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators. Sites which appeared to be eligible or potentially eligible for inclusion on the National Register of Historic Places would be recorded using a Garmin GPS 12XL rover which tracks up to twelve satellites.

Sites would be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead agency in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

Analysis of collections would follow

professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains.

A total of 34 shovel tests were excavated along seven transects. Nevertheless, the archaeological survey of the 5.4 acres failed to identify any archaeological remains. This is most likely the result of intensive disturbance of the soil due to intensive erosion and the lack of any flat areas which would support habitation.

Architectural Survey

As previously discussed, we elected to use a 1.0 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950. Typical of such projects, this survey recorded only those which "have kept their integrity" (Anonymous n.d.:4) and which were visible from public roads.

For each identified resource we would complete a Statewide Survey Site Form and at least two representative photographs were taken. Permanent control numbers would be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History.

Site Evaluation and Findings

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National

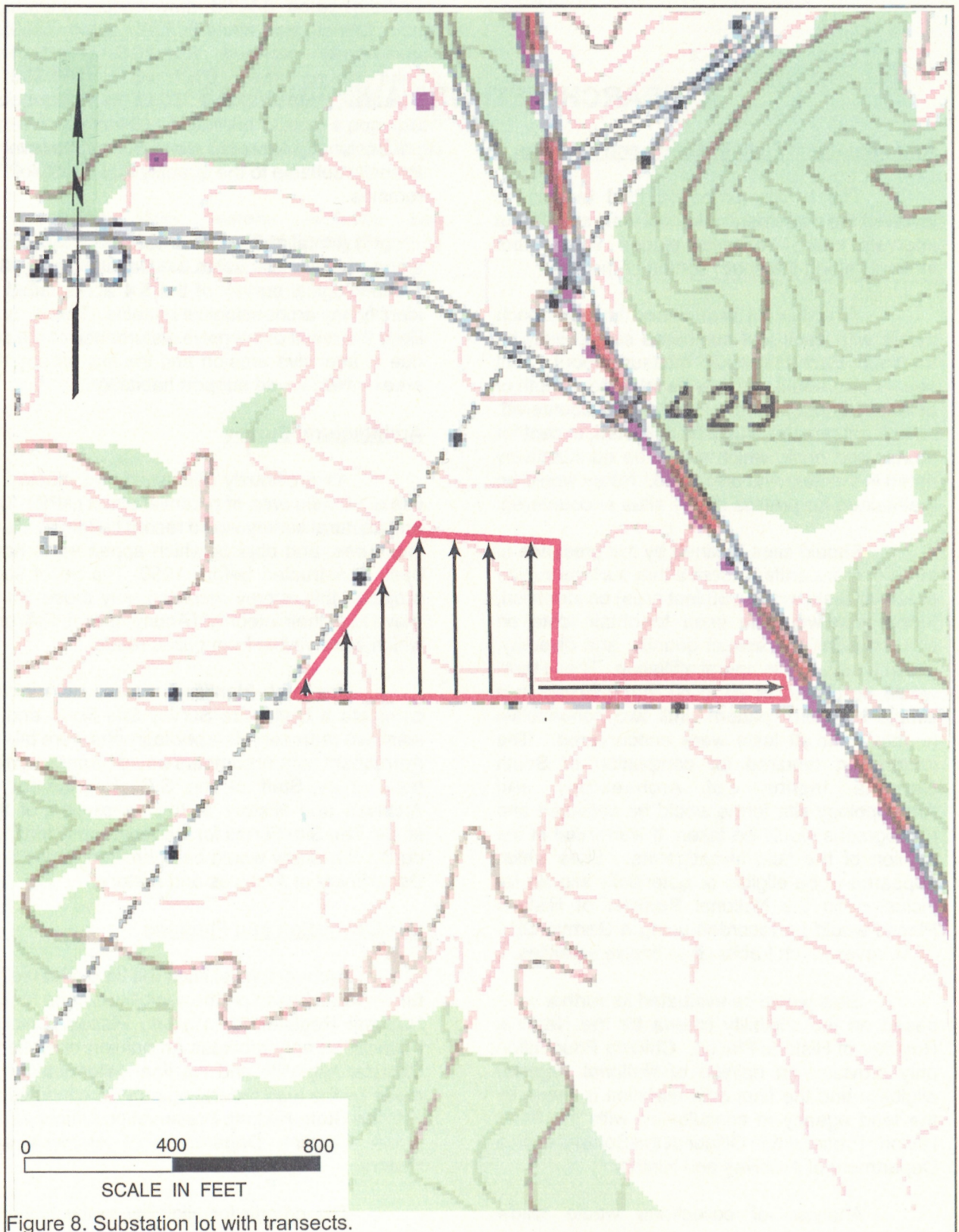


Figure 8. Substation lot with transects.

Register of Historic Places is described by 36CFR60.4, which states:

the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or

b. that are associated with the lives of persons significant in our past; or

c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;

- identification of the historic

context applicable to the site, providing a framework for the evaluative process;

- identification of the important research questions the site might be able to address, given the data sets and the context;

- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

For architectural sites the evaluative process was somewhat different. Given the relatively limited architectural data available for most of the properties, we focus on evaluating these sites using National Register Criterion C, looking at the site's "distinctive characteristics." Key to this concept is the issue of integrity. This means that the property needs to have retained, essentially intact, its physical identity from the historic period.

Particular attention would be given to the integrity of design, workmanship, and materials. Design includes the organization of space, proportion, scale, technology, ornamentation, and materials. As *National Register Bulletin 36* observes, "Recognizability of a property, or the ability of a property to convey its significance,



Figure 9. View of transmission line on the edge of the substation lot.

depends largely upon the degree to which the design of the property is intact" (Townsend et al. 1993:18). Workmanship is evidence of the artisan's labor and skill and can apply to either the entire property or to specific features of the property. Finally, materials — the physical items used on and in the property — are "of paramount importance under Criterion C" (Townsend et al. 1993:19). Integrity here is reflected by maintenance of the original material and avoidance of replacement materials.

The survey failed to identify any structures that were visible from the survey area. Within the 1.0 mile APE there are no structures which contain enough integrity to be eligible for the National Register of Historic Places.

CONCLUSIONS

This study involved the examination of approximately 5.4 acres of land for the construction of a substation. The project area is located in the southwestern portion of Edgefield County. This work, conducted for Central Electric Power Cooperative, examined archaeological sites and cultural resources found on the proposed project area and is intended to assist the S.C. Department of Transportation in complying with their historic preservation responsibilities.

As a result of this investigation no archaeological sites were uncovered. This is most likely due to the sloping topography and the lack of any significant ridge tops.

A survey of historic sites was conducted within a 1.0 mile APE. No structures were found

within the APE which retained enough integrity to warrant a National Register of Historic Places nomination.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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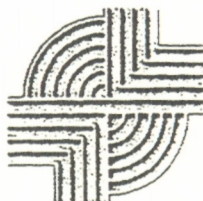
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